

NEBRASKA ENERGY EFFICIENT FOOD MARKETING GUIDEBOOK

ALTERNATIVE CROPS PRODUCTION, PROCESSING, MARKETING

High School Youth Starts Farmers Market

LINCOLN--A 17-year-old Nebraska youth, who helped establish a farmers' market then increase his sales sevenfold, has been named one of eight national winners in the 4-H gardening and horticulture program.

Gregory A. Hupf, Rural Route, Box 67A, Holstein, received a \$1000 scholarship from the program sponsor, Ortho Consumer Products Division, Chevron Chemical Company.

Selected by the Cooperative Extension System, the winners were presented with their awards during the 65th National 4-H Congress in Chicago, Dec. 6-11. Awards are arranged by National 4-H Council.

Hupf, son of Mr. and Mrs. Gayle Hupf, is a high school junior. He plans to study chemistry and medicine to prepare for a career in medical research. He is a nine-year 4-H'er.

The Adams county youth helped establish a farmers' market in Hastings in 1981 "as a dependable marketplace for purchasing quality produce." By 1984, his sales volume had increased

by more than seven times.

"Higher yields, intensive plantings and better management brought about this improvement, not a larger garden," he said.

After the dramatic improvement in yield, he doubled the size of his garden in 1985 by planting a "pick-your-own" pumpkin and watermelon patch. He also entered the wholesale vegetable business.

Hupf said, "I discovered I could be an aggressive salesman and quickly developed markets with a large grocery chain and several restaurants," which again increased his sales volume dramatically.

The youth stepped in and took over leadership of the farmers' market when others were out of the city. He also established a steering committee and wrote regulations for vendors.

"Because of my gardening experience, I am capable of making prudent business decisions, managing money and working with the public," he said.

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INTRODUCTION

Grow vegetables for profit? Sounds like a great idea, right? Well, it can be very successful, but it's not as easy as it sounds. To compete with Sunbelt producers, Nebraska growers need to know all the ins and outs of growing, processing and marketing alternative crops, specifically vegetables and fruits.

This Guidebook is designed for people who want to know just those things. The first section discusses the advantages Sunbelt producers have over Nebraska producers, and

explains the necessity for Nebraska producers to be as efficient as possible.

Section II outlines how to start up a Farmers Market. Farmers Markets are one of the

best ways for new producers to ease into the fruit and vegetable market.

Section III examines wholesale fresh vegetable production and marketing. To compete in this market, you need to understand grading and packing requirements, as well as how to negotiate and fulfill contracts for delivery of produce.

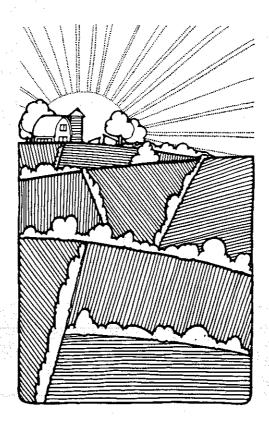
In Section IV, you learn how to produce for Nebraska-based food processors and how

to break into regional and national markets.

Section V, by Charles Francis of the University of Nebraska Department of Agronomy, explains new techniques in resource-efficient crop production. This includes getting the most from your natural resources with good management: crop rotation, legume interseeding and moisture management.

The Guidebook concludes with an Appendix full of good sources for more

information.



SECTION I

EXISTING EFFICIENCIES AND KNOWING THE COMPETITION

Benefits to the Producer

The primary advantage you, as a Nebraska producer, have over Sunbelt producers is your proximity to the Nebraska and midwestern market: as much as half of the wholesale cost of vegetables is transportation related.

However, this one advantage can be offset by distant suppliers' year-round production capability, decades of experience with growing and marketing vegetables, and highly specialized equipment for growing and harvesting produce. Obviously, the producer with the lowest combined production and transportation cost per unit of output will be the most successful in the market place.

Nebraska growers need to be as efficient as possible in all stages of production to build

on your favorable transportation costs.

All costs associated with production, processing and transportation need to be minimized. Energy costs for soil preparation, transplants, irrigation, fertilizer, pesticides and herbicides, other weeding, and harvesting, can be reduced by adopting row crop energy conservation plans discussed in Section V. The Nebraska grower also needs to be able to deliver vegetables earlier or later in the season to avoid traditional high production periods. This allows you to realize price advantages and find market niches.

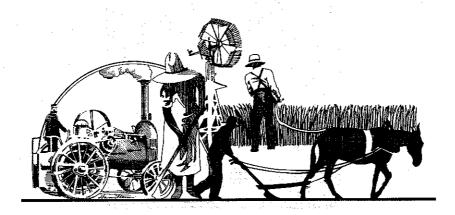
Benefits to the State

Home grown produce benefits more than just the growers. The entire state benefits from the sale of efficiently grown, domestically grown produce.

Growing produce efficiently reduces the amount of energy purchased and consumed for tilling, fertilizing and irrigating. Lower energy consumption means less money flows out of Nebraska to pay for the needed imports.

Purchasing domestically grown produce not only saves on energy but also keeps money in the state's economy, creating income and jobs for your friends and neighbors. A similar scenario occurs when out-of-state consumers purchase Nebraska products.

Many benefits can be realized by growing, marketing and consuming domestically produced fruits and vegetables. But producers can face poor odds if they don't do their homework on the particular techniques required for successful vegetable production and marketing; so read on.



SECTION II

FARMERS MARKETS

Many families now grow extensive home gardens and already know which vegetables do well in Nebraska's soil and climate. Farmers Markets offer these new producers an entry into vegetable production and marketing at a level of production which reduces the financial risk of growing crops which can be capital, labor and energy intensive.

Farmers Markets offer a producer the chance to sell produce at near-retail prices. Daily sales can range from a few dollars to hundreds of dollars, depending on the type of crop and the demand for it. Earning several hundred dollars from vegetable sales on a Saturday

morning can supplement a tight household budget.

Farmers Market produce is known for its high quality. Often produce is of premium quality and brings more than grocery store prices. Sometimes quality is mixed. Field run vegetables can be picked over by the consumer or sold in lots. Vegetables which would not make the USDA grades demanded by the wholesale customer often sell well in a Farmers Market. Consumers know that size and appearance are not as important as taste and will pay almost as much for vegetables which are not graded.

The amount of vegetables produced can be regulated by the size of the market as understood by the producer, under actual market conditions. Selling out quickly every week in a short time and getting good prices is a good indication that next year might be a

good time to devote more effort to growing vegetables.

Eventually commercial production for wholesale markets could become a reality. In order to sell to these larger markets you will have to know how to grow and deliver vegetables on a large scale. These vegetables will have to be the same quality and price as imported ones in order to interest wholesale buyers. Experience gained in Farmers Market activity will be invaluable when expanding production.

Getting Started

Starting a Farmers Market from scratch is not easy but a little research, as outlined in

this Guidebook, will tell you if the factors are present to start your own market.

The first step toward founding a Farmers Market is to gather support for the effort from other growers, local business people, city officials and the County Extension Agent. You may already know some of your neighbors who are selling surplus vegetables at roadside stands or on street corners. Talk to them about starting up a Farmers Market and get a commitment from them to help promote it. Also talk to the County Extension Agent to get names of other growers in the area who might be interested. Many Cooperative Extension Agents have experience dealing with vegetable

production and sales. The Cooperative Extension Agent can also be very helpful in encouraging local business people to participate in organizing a Farmers Market.

Business people should be involved in organizing a Farmers Market because their cooperation may be needed for finding a location for the Market and promoting it. For example, many small towns have the Farmers Market located in a grocery store parking lot. The grocers realize they might not sell as much fresh produce on Market day, but increases in other non-produce sales from increased foot traffic will make the effort worthwhile, and the benefits of increased foot traffic may spill over to other shops. Local Chambers of Commerce have sponsored Farmers Markets in many towns in Nebraska, as part of a community economic development effort.

When you have organized a group of interested growers, business owners, Extension Agents and possibly even consumers form a steering committee. This committee can then

make the many decisions necessary to start up your own Farmers Market.

If you can't find enough interest in your community to begin a Farmers Market, your Extension Agent may know of nearby towns where active Markets are located. It may be better to attend a nearby Market which is busy rather than attempt to start up your own Market. Over thirty Farmers Markets are located in Nebraska. The Nebraska Direct

Marketing Association has published a directory listing 150 people who sell products directly to the public and a current list of Farmers Markets located around the state. (See Appendix)

Market Size

The first point the committee should consider is the physical size of the market. How

much space will be needed?

An estimate of the number of sellers who would come to a market is necessary to determine the amount of space needed. Then you need to estimate how much space each will want. Many producers want to sell right out of the back of their truck, or will leave most of the produce in their truck and sell from a small table nearby. These producers don't want to unload a whole truckload of produce, especially if they have to carry it very far. A regular size parking stall is fine for areas where the vehicle can pull right up into it.

Other sellers may want to use tables to sell from. One booth ten feet by ten feet will satisfy most sellers but some may want several booths if they have large amounts of produce to sell. You must also be sure to design enough space for people to walk around

and shop. Several hundred shoppers could easily be in the market at one time.

Business Formation

The purpose and size of your Farmers Market determines how formally it should be organized. The most important thing to keep in mind while organizing is the purpose of the Market. Is it to be a small get-together for

local backyard gardeners or a major marketing opportunity for area growers, or a central

component to a community's economic development program?

The Market can be an informal agreement among the producers to sell vegetables at a given time and place, a corporation with a life of its own, or a subsidiary of another group like the Chamber of Commerce or an economic development group. Whichever form is used, policies should be set and adhered to on issues like management, financing, promotion and guidielines. Usually, the steering committee decides on the type of business organization needed to get the Farmers Market organized. Consult a lawyer to set up formal organizations, to outline duties and responsibilitites of participants and to allow for expansion of the scope of activities.

Time and Place

Times and locations of Farmers Markets vary greatly, depending on the goals, or

purpose, of the Market.

Markets usually run from Spring until Fall. A market can start as soon as it warms up outside in the Spring. Items like bedding plants, flowers, baked goods, eggs and frozen meat can be sold beginning in April and May. Some organizers don't want to start this early; they wait until crops like broccoli, cabbage and cauliflower are ready in June. Still others wait to begin the Market when tomatoes and sweet corn, the most popular vegetables, are ready in July.

Whatever season the Market begins, don't end prematurely. Markets ending in August miss the Fall crops such as squash, onions, potatoes, pumpkins and fruit. As growers become more sophisticated, they will be able to extend normal harvesting dates for many crops. Learn what the growers are capable of and hold the Market when produce is

available.

The second "time" question to be answered is the time span of the Market. Starting times vary greatly from Market to Market. Some groups have a Farmers Market in a different nearby town every day, some have only a Saturday morning market, or the markets are held every day of the week. Usually a Saturday morning is best for groups just starting out. Later, you might consider a Market which operates twice a week to spread out the harvesting of perishables. Or what about an evening Market to allow people who work in the daytime a chance to attend?

A final consideration for the time of a Market is other community activity. A Farmers Market can have significant tourist attraction potential and coordinating the Market with

special events in the community can enhance the success of both events.

A good location is important to a Market no matter when it is held. The location should

be convenient and comfortable for consumers. Nearby parking or easy access is wanted by people contemplating buying large amounts of produce. Customers will be more willing to browse and shop if they are comfortable, so consider a location protected from rain and sun.

Sometimes the use of a building can be donated for a few hours every week. Find buildings you like and approach the owners to see if you can use

them for the Market.

The location is also important to sellers at the Market. For convenience, they may want to be able to drive right into the selling area and operate out of the back of their vehicles. Shelter is also needed for the produce. Tall buildings to the east may give enough shade until noon to keep perishibles crisp. Observe potential sites during different times of the day to learn how much sun shines on the site. If necessary, sellers can devise shade canopies to protect produce by covering the back of their truck with canvas supported by poles. Whatever time and location you select for the market, stick to them. Consistency is vital to a market's success so customers can know when and where to go.

Regulations and Permits

Many state and local regulations exist for selling food at Farmers Markets, and the steering committee needs to learn what they are and pass them along to sellers.

Check with the local Health Department to see if there are any special rules governing selling food in a Farmers Market. Some towns restrict the selling of baked goods containing cream or other perishable fillings, in an outdoor setting, because of the

possibility of spoilage.

Common sense types of rules govern most fresh produce sales in a typical Farmers Market: produce must be clean and free from contamination. Growers should be asked to document the safe use of pesticides and herbicides. This can be done by having the producer sign an affadavit guaranteeing the following of label instructions on pesticide and herbicide containers. (See Illustration #1)

Another restriction on produce is that it should not be hauled in a vehicle which has just been used to haul livestock until the vehicle has been cleaned. The truck does not have to be

sterilized, but manure should not be seen or smelled.

Produce is usually sold by the piece or lot in a Farmers Market. If produce is sold by

the pound a state inspected scale should be used.

Many products have their own set of rules. Dairy Products are some of the most regulated products to sell in a Farmers Market. They must be kept refrigerated and covered.

Meat also needs to be kept cool and covered or wrapped. Frozen meat can be sold with a minimum of trouble by keeping it in a good insulated cooler. The meat has to be federally inspected and labeled to be sold by the piece at the Market. Federal inspection is not needed if livestock are sold before slaughter, so some livestock producers use the Farmers Market to meet the public and give out free samples to sell their beef on the hoof. The customer can have the animal processed at any commercial locker plant and the meat does not have to be federally inspected.

To sell eggs at the Market, a permit is required from the State Department of

Agriculture.

The community in which you hold the Market may require still other special permits to allow selling on the street or to temporarily close a street for the market. It's a good idea to make city officials part of your project and inform them of your activities from the very beginning. This homework may result in their being more cooperative and making special arrangements for the market. You may want to have a contract with the city outlining mutual duties and obligations, including bonding and insurance requirements. (See Lincoln Farmers Market Contract, Illustration #2)

Promotion

Just as there are many ways to organize a Market, and many times and places to have it, there are also many different ways to promote it. Below are brief descriptions of several methods. Choose one or a combination of several of these to attract the attention your market deserves!

News Media

The news media is always looking for a "juicy" story, and what could be better than a front-page color photo of a basket of ripe tomatoes from the Farmers Market? Contact the area newspapers and invite them to the Market. In between news stories of the Market, purchase advertising to give continuous Market exposure to the public. If your schedule is complicated (different towns or multiple days with varying hours), a paid schedule in the newspaper will be especially valuable for attracting customers.

Public Service Announcements

Live broadcasts over radio and television really get people's attention and will sometimes be donated as a public service. Write a press release describing the Market in detail (times, place, products available). Then include two public service announcements lasting ten seconds and thirty seconds. The announcements should sum up the information in the press release for use by electronic media. Send it to every television and radio station in the area. Soon afterward, contact the stations by phone to reinforce the information in the press release and to answer any questions. Often live broadcasts featuring the market will result from these contacts. Several releases over the season are useful to give variety to the announcements and to inform people when new vegetables or other products are available.

Miscellaneous

Other promotional techniques include putting up posters around town to inform potential customers about the market. Asking friends to tell their friends about the market will be your best promotion of the quality and

diversity of products at the Farmers Market. Distributing leaflets about the Market and the specific products available also informs consumers. Create produce bags or shopping bags with a colorful logo. These will attract a lot of attention and the customers appreciate having something sturdy to carry their goods.

Entertainment lends to the carnival air of a Farmers Market and is a good chance for local groups to showcase their talents. Musicians will donate a performance just for the public exposure. If the budget permits hiring professional musicians, get the best you can afford.

Funding

The level of activity and organization of a Farmers Market influences its need for funds. While small markets may only need a common understanding among the growers and consumers about place and time, larger markets may need paid coordinators to organize growers and Market publicity. There are several ways to get funds to pay a coordinator. Stall fees or commissions from sales can be collected by a market manager. Funds may be donated by local businesses or the city council if they can see increases in foot traffic in the area during Market times. Funds are available from the Federal government through the Nebraska Department of Agriculture to help organize Farmers Markets. Charitable foundations, like the Kiewit Foundation in Omaha, are good sources of seed money to fund organizational activities. A source book of Nebraska Foundations can be found at your local library.

Community Action Agencies have been very helpful in several communities. They have garden programs available where seeds and plants are donated to low income residents and have organized Markets with community support to sell excess produce. Contact your local Community Action Agency to see if they would want to become involved in setting up a Market.

Market Operation

For smooth market operation, one person or a small committee needs to be specifically appointed as market manager. This person or committee will have several tasks. It should have the responsibility of setting up the market, getting the producers in their stalls and watching the flow of activity in the market. If streets are blocked off the manager should make sure that the barricades remain up. Sometimes emergency traffic needs to get through and the barricades will need to be moved and replaced. The manager should also be aware of the flow of consumers amongst the stalls. If customers and sellers are crushed together, map a different arrangement for the next time.

The manager will also be the referee between the sellers, the public and the regulators. Sellers may want to sell before the official starting time but chaos will result as starting time

edges earlier and earlier. Starting times should be set and adhered to.

Managers should encourage sellers to price their produce at levels similar to that in the

grocery stores. Retail price is a good guide to what the produce

is worth. Consumers are willing to pay well for high quality produce and tend to come back again to sellers whose products they like. Sometimes higher priced produce outsells

low priced produce.

"Home made" or "home grown" are phrases used to describe what many people think should be at the Farmers Market. The Market manager will have to decide if prepared food or crafts items will be sold at the market, in addition to fresh produce. Ready-to-eat foods complicate the regulatory and taxation picture because these foods often have to be prepared in certified kitchens and are included under sales tax rules. Craft items draw consumers but may conflict with the atmosphere established for the sale of farm products.

The manager can also be responsible for trying to match supply and demand at a Market. If large quantities of produce are going unsold, attract more customers. If large crowds buy all of the produce in a short time and want still more, find additional growers

to supply the market.

Techniques which help bring additional sellers include sending a regional press release to all media and making follow up phone calls to media representatives. The release should emphasize the strength of the market and the need for additional sellers. An organizational meeting in nearby towns will attract interested sellers to find out more. Extension Agents may also know of additional sellers, so include them in your meetings.

Some markets allow anyone to sell, even people from warmer climates who have truckloads of types of produce which may not be ready in local fields for weeks. A drawback to having these producers in your market is that local producers may be driven

out of the Market by this type of competition.

Other Options

If Farmers Markets don't sound interesting to you, consider selling produce from road side stands or "pick your own" operations. These will not bring the retail price obtainable at a Farmers Market, but profits still may be possible given lower operational costs. However, producers need to be cost conscious: advertising costs may outweigh the savings from lower transportation and packaging costs.

Direct sales to grocery stores and restaurants by the producer will also result in lower prices but increased volume can compensate for the lower price. These buyers are more insistent on standard grading and packaging and are worried about a dependable supply. You will also be competing with local warehouse distributors. These same distributors

may be potential customers for you so be prudent.

Other products like meat and grain can be considered alternatives if special production and processing adds value. Recent examples in Nebraska are a new cereal recently developed and a profusion of processed meat products like summer sausage, beef jerky and organic meat with certified low levels of additives and special production procedures which

eliminate pesticide and herbicide use on grain fed to these animals.

The Food Processing Center at the University of Nebraska has information on developing new products and help with marketing and promotion. They can design manufacturing and processing plants for food. The Food Processing Center can also help facilitate the acquisition of crop production information through the Departments of Horticulture and Agronomy. (See Appendix)

Haymarket Farmers Market Rules & Regulations

1. Market will be in operation from May 30 through October 10, 1987.

2. The purpose of the Farmers Market is to provide a place to sell locally produced vegetables, livestock, and grain products. These people will be given first priority on stall space.

3. Craft items and prepared food items are permitted.

4. Products offered for sale must be priced individually or per number or per volume.

5. Must sign affidavit of pesticide residue.

6. Each seller will be responsible for cleaning his stall before leaving.

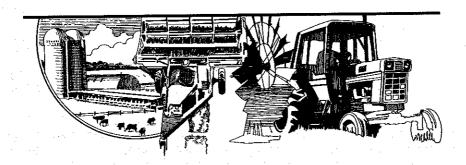
7. Stall Fees: \$10.00 per day; \$75.00 per season.

- 8. Season stall holders may reserve stall of their choice.
- 9. Set up time is 8:00 a.m. No sales before 9:00 a.m.

AFFIDAVIT

The produce I am offering for sale at the Haymarket Farmer's market is free from harmful pesticide residues. I further acknowledge that pesticide applications made to produce being offered for sale have been made according to prescribed label directions.

Date		Seller's Signature	



PUBLIC MARKET CONTRACT

THIS CONTRACT made and entered into by and between the SMALL FARMS ACTION GROUP, a nonprofit corporation, hereinafter referred to as "Small Farms," and the CITY OF LINCOLN, NEBRASKA, a municipal corporation, hereinafter referred to as "City."

WHEREAS, it is in the public interest to promote the commercial use of the downtown area with innovative and unique attractions; and

WHEREAS, Article VIII, Section 13 of the Charter of the City of Lincoln empowers the City Council to contract with any person or persons to conduct and regulate a public market.

NOW, THEREFORE, in consideration of the mutual covenants herein contained, it is agreed by and between the parties hereto as follows:

- 1. City hereby authorizes and empowers Small Farms to act as the sponsoring and regulatory agency for the establishment and regulation of a public marketplace on a nonexclusive basis.
- 2. Small Farms is granted the exclusive right to use a portion of the public right-of-way under the Harris Overpass between 8th and 9th Streets as shown on the attached Exhibit "A." Such right-of-way and pedestrian areas shall be used only between the hours of 9:00 a.m. and 2:30 p.m. on Saturdays, and between the hours of 11:00 a.m. and 1:00 p.m. on Tuesdays, from June 16, 1985, through and including September 30, 1985, for the purpose of conducting a public market.
- 3. Small Farms shall allocate stalls to sellers within the above-described public right-of-way on a first-come, first-served basis. Both a daily and seasonal permit will be issued for the use of said stalls by the sellers. Permit fees shall be based upon the number of days a participant wishes to sell, along with whether or not he/she desires to sell directly from a vehicle

Daily permit fees are: \$2.50 without a vehicle, or \$5.00 per day from a vehicle.

Seasonal permit fees (allowing no vehicles in selling area) are \$20.00 to sell one day per week, or \$35.00 to sell two days per week. Seasonal permits allowing a vehicle are \$30.00 to sell one day per week, or \$50.00 to sell two days per week. Such permits shall be issued only to individuals who intend to sell homegrown and/or prepackaged produce.

- 4. The sellers shall be allowed to sell homegrown fruits, vegetables, eggs, honey, plants, and flowers. Meat, sausage, and cheese may be sold with the provision that these products shall be processed in a licensed plant. Also, meat, sausage, and cheese shall be pre-packaged and kept in temperatures of 45 degrees Fahrenheit or below.
- 5. Small Farms shall appoint an individual as market supervisor who shall generally supervise the market during its hours of operation and who shall be responsible to see that the terms and conditions of this Contract are being complied with. Small Farms may also promulgate such rules and regulations as it shall deem necessary to govern the operation of said market.
- 6. The market shall be run in strict compliance with all pertinent health codes of the City of Lincoln and the State of Nebraska. The Department of Health of the City shall be entitled to make inspections of any goods offered for sale in the public market area. If the Health Department finds any violations of the health, safety, and welfare of the citizens of Lincoln, the market supervisor shall be notified; and it shall be his duty to revoke the permit of the seller in violation until such violations are satisfactorily corrected.
- 7. All stalls shall be so operated and so conducted as not to interfere with the free flow of pedestrian traffic on the sidewalks in the public right-of-way. Vehicles using the parking stalls shall be parked in a legal manner.
- 8. Small Farms shall be responsible for continuously maintaining the market area in a neat and clean condition during the operation of the public market. Upon the termination of each day's business, Small Farms shall

be responsible for ensuring that the market area is cleared of all accumulated garbage, trash, and litter, and all structures, tables, stands, and other obstructions erected during the operation of the market.

- 9. Small Farms agrees that any time on a market day that market operations cease for lack of additional goods and produce or for any other reason, Small Farm's exclusive right to use the public space shall terminate, and the public right-of-way shall immediately be returned to public use.
 - 10. Small Farms agrees to keep the streets around the market area cleared for use by through traffic.
- 11. Small Farms agrees that prior to commencement of any market operations, arrangements shall be made for adequate sanitary facilities to accommodate the sellers and the market patrons.
 - 12. Prior to commencing any operations under this Contract, Small Farms shall:
- a. Provide a bond approved as to form by the City Attorney, executed by a bonding company or a surety company authorized to do business in the State of Nebraska in the sum of five thousand dollars (\$5,000) conditioned upon the faithful execution of all terms and conditions of this Contract;
- b. Provide the City with a public liability insurance policy or a certificate of insurance which Small Farms has taken out and agrees to maintain in full force and effect at all times covered by the Contract at the expense of Small Farms, which insurance shall include the City of Lincoln as an additional insured and with minimum limits of liability of bodily injury including wrongful death of \$300,000 each occurrence, \$300,000 aggregate; and property damage limits of \$50,000 each occurrence, \$50,000 aggregate. Such insurance policy or certificate shall be filed with the City of Lincoln and shall specifically state that the insurance company will give the City of Lincoln at least thirty (30) days written notice in the event of cancellation of or material change in the policy.
- 13. Small farms agrees to save and keep the City free and harmless from any and all loss or damages or claims for damages arising from or out of the establishment, regulations, or operation of the public market.
- 14. Small Farms agrees to pay the City three dollars (\$3.00) per day for each parking meter required to be hooded in the market area.
- 15. If additional right-of-way is request by Small Farms for use in conjunction with the public market, the Mayor is authorized to modify Paragraph two of this Contract to grant to Small Farms the exclusive use of an additional portion of the right-of-way, and the grant of such additional exclusive use of right-of-way shall be subject to the approval of the City Traffic Engineer and shall be subject to all other terms and conditions of this Contract.
- 16. The City hereby reserves in its proper officers the authority to supervise and control the use of all public property for the benefit of the public. Small Farms may be required by the City at any time to vacate all or any part of the surface space.
 - 17. The term of the Contract shall be from June 16, 1985 through and including September 30, 1985.
- 18. If Small Farms should fail to perform all the terms and conditions as provided in this Contract, the City may, in addition to availing itself of all other legal remedies, treat this Contract as terminated and all the rights and interests of the parties herein as null and void.

DATED this day of	, 1985.
ATTEST:	SMALL FARMS ACTION GROUP, a nonprofit corporation
	Fine Burdin
Secretary	Executive Director
ATTEST:	CITY OF LINCOLN, NEBRASKA, a municipal corporation
City Clerk	Roland A. Luedtke, Mayor
()	
Approved as to Form and Legality.	

12

SECTION III

WHOLESALE FRESH VEGETABLE MARKET

As growers become more familiar with vegetable industry standards and how to produce for them, production levels can be increased to supply the larger quantities demanded by wholesale markets. Cooling, grading and packing operations will be

necessary to meet the standards of wholesale buyers.

Wholesale fresh vegetable buyers are usually distributors supplying grocery stores, restaurants and institutions. Distributors are service oriented so they depend on consistent, standard product sales to established customers. Most of the distributors contacted in Nebraska are willing to buy from local producers if product quality matches that obtainable in national markets. In short, your product has to be the same or better as their regular supply, in large quantities, and at the same or better price, in order to make a sale.

Pricing

A successful producer is one who delivers the desired vegetable product to the willing buyers. The fresh vegetable market is dynamic and characterized by swift communication and stiff competition. Vegetables are susceptible to adverse weather conditions and perish easily after harvest if not stored properly. Fresh vegetable ventures can be profitable, but

many risks are involved.

Unlike traditional Nebraska crops which are heavily subsidized, the prices of vegetable products fluctuate daily based on supply and demand and the anticipated changes in market conditions created by an inability to harvest because of bad weather. Prices are volatile and difficult to predict because of variables like this. Fresh vegetable producers are also caught by seasonal price slumps because of backyard, local and regional growers producing

during the traditional growing season.

Vegetable prices are determined by the daily California price quotes plus transportation costs. Producers' sales representatives can negotiate with buyers to raise this price by offering immediate delivery or by offering better quality than west coast suppliers, or if the buyer thinks that the west coast price will rise by the time the produce is delivered. Transportation costs from the west coast can easily represent half of the wholesale cost of produce, so local producers can offer a savings to the buyers to make a sale and become a regular supplier.

The local producer must develop an aggressive marketing plan to find new customers while satisfying the existing customers: a successful venture requires more than production

capabilities. You need to be a good business person and a good sales person.

Costs

The producers with the lowest combined production and transportation cost per unit of output will be able to offer lower prices to buyers and will be able to cover their production costs easier than other producers in the long-run production situation.

The high cost of planting and harvesting vegetable crops means that dependable markets must be found for your crop; sometimes years ahead of your production. Producers need sufficient financial resources to withstand losses due to crop failure,

weather, or poor market conditions.

Nebraska producers need to be as efficient as possible to capitalize on our favorable transportation situation. All costs associated with production, processing and transportation need to be examined. Reduced tillage techniques cut down on the number of trips necessary to prepare seedbeds and cultivate young plants. This saves fuel and reduces soil compaction. The use of organic wastes like animal manures or compost add low cost fertilizer complete with trace minerals. Compost can reduce irrigation requirements by soaking up and retaining water. Crop rotations with legumes can add low cost nitrogen and reduce insect problems.

You can also cut costs by organizing with nearby producers. Groups can save money by buying planting and harvesting equipment together. The same is true for groups buying bedding plants, seeds, plastic mulch and irrigation pipe to take advantage of quantity discounts.

Cooperative ventures using shared planting, harvesting and processing equipment can increase output efficiency and result in volumes of produce large enough to interest wholesalers and processors. Vegetable coops are starting up in many places in Nebraska, and if you would like more information on them, contact your Cooperative Extension Agent.

Product

Nebraska producers can grow a wide variety of vegetables and fruits for domestic

consumption. (See Illustration #3)

Nebraska has favorable climatic conditions for seasonal vegetable production. The key word however is seasonal. Year-round markets cannot be established within the state or in out-of-state regions without greenhouse cultivation.

Vegetable Quality

The distributor's preference dictates which product will be purchased. The distributor has distinct preferences for vegetable products of certain color, size and weight. The freshness for each type of vegetable is equally important. The fresh vegetable product that is delivered to the market has to meet USDA and consumer quality standards. There are also packaging standards to be met. Each product may be packaged differently to ease handling and increase the convenience for the customers. As a producer, you need to find out how the wholesaler (or the customer) wants the product to be packaged. Cooperation and communication between the producer and distributor is necessary to meet product specifications.

A recent publication from the University of Nebraska Food Processing Center, Understanding Commercial Vegetable Markets in Nebraska, explains preferences of Nebraska wholesale buyers and USDA standards for a wide variety of produce which can be grown in Nebraska. Being able to recognize quality as defined by the USDA may take

years of growing and handling experience. (See Illustration # 4)



Produce Items and Their Respective Variety Types Typically Received by Nebraska Commercial Buyers

Produce Variety

Apples Red Delicious, Golden Delicious, Jonathan, Red Rome,

Winesap, McIntosh, Granny Smith, Criterion

Asparagus Mary Washinton hybrids, viking hybrids

Broccoli Green Comet, Premium Crop, Goliath

Cabbage Domestic, Red, Savoy, Super Green, Green Winter,

Red Winter

Cauliflower Snowdrift, Self-blanche varieties

Cucumbers Raider, Universal, Market More 76, Monarch

Endives Salad King, green curled varieties

Green Onions White Portugal, Japanese Bunching

Green Peppers Burlington, California Wonder, Bellboy

Lettuce (Leaf) Grand Rapids

Onions Texas Early Grano, Granex, Yellow Bermuda, Yellow

Globe, Yellow Sweet Spanish, White Globe, Inca, Vega,

Armada, Rockets

Potatoes Russet Burbank, Norgold Russet, White Rose, Centennial

Russet, Red Pontiac, Red La Soda

Radishes Red Globe

Snap Beeans Busblue Lake strains

Spinach Savoy hybrids, Bloomsdale Sweet Corn Yellow hybrid varieties

Sweet potatoes Jewel, Puerto Rico, Yellow Jersey

Squash (winter) Butternut varieties, Acorn, Spaghetti, Hubbard, Banana

Summer Squash Crookneck types, straightneck types

(Zucchini)

Tomatoes Cherry type, Jet Star, Champion, Sunny

Watermelon Charleston Gray, Crimson Sweet, Jubilee, Black Diamond

(all sweet)

Illustration #4

PROCESSED PRODUCT	JUCT GRADE	ACCEPTABLE One variety, free from decay, worm h	les.	
APPLES	₹	One variety, free from decay, worm holes, freezing injury, internal breakdown; free from other defects or combination of defects causing loss of > 5% by weight of the apple	ur.	Overripe
	U.S. No. 2	One variety, free from decay, worm holes, freezing injury, internal breakdown; free from any other defect or combination of defects causing loss of > 12% by weight of the apple	#	
	U.S. Cider	Free from decay, worm holes, and internal breakdown	Same	
ASPARAGUS	U.S. No. 1	Fresh, fairly well formed, free from decay, broken tips, free from damage caused by doubles, spreading tips, knife cuts, broken butts, hail, freezing, dirt		Broken tips, spreading tips, beetle eggs, dirt or sand embedded in tip, seedy tips; wilted, limp or flabby spears; badly flattened, crooked or deformed spears
.	U.S. No. 2	Fresh, free from decay, free from damage caused by dirt, free from serious damage caused by disease and insects		
SMAP BEANS	U.S. No. 1	Uniform, fresh, firm, succulent, tender, fairly well formed, free from decay, anthracnose, FM, free from damage caused by scars, rust, disease, insects, bruises, punctures, broken ends		Mixed types, wilted, puffy; spongy walls; overmature, leathery, stringy, fibrous; whitish, pithy tissue or air pockets around the seeds
	U.S. No. 2	Similar color and type, fresh, firm, not tough or overmature, not seriously misshapen, free from from damage listed above	5 9 8 8 8	
BROCCOLI	U.S. No. 1	Stalks or portions of stalks which are fresh, tender, good characteristic color, compact, well trimmed heads, free from damage caused by discoloration, freezing, hollow stem, pithiness, scars, dirt, FM, disease, insects	h, Decay, cull material	aterial
	U.S. No. 2	Fresh, tender, good characteristic color, fairly compact heads, fairly well trimmed, free from damage caused by discoloration, freezing, hollow stem, pithiness	: Sa pe	
CABBAGE	U.S. No.1	Firm, well trimmed heads, free from soft rot, seedstems, damage caused by bursting, discoloration, freezing, disease, birds, insects	1	Heads with loose leaves, stems > i/2" long, loosely formed or lacking compactness
	U.S. No. 2			

SECTION IV

PROCESSED VEGETABLE MARKETS IN NEBRASKA

The commercial vegetable processor in Nebraska has the potential to reach a considerably larger market region than the fresh product distributor. This is because processed vegetable products are less perishable, readily handled and transported over longer distances, and easily stored over longer periods of time. Processed vegetables can

be sold in regional, national, and even international markets.

The commercial processed vegetable market in Nebraska has great potential for expansion due to Nebraska's productive resource base (soil, water, sun and farmers) relative to the size of the vegetable processing industry in Nebraska. The established commercial processors and traditional vegetable producers have developed a fiercely competitive food processing industry.

Producer Concerns

The vegetable producer is generally concerned with what product is needed and how to produce it. The vegetable processor is concerned with the product specifications and a consistent, reliable supply. The problem lies in matching producer/processor requirements.

The producer must identify the product and its specifications by contacting the processor directly. Quality is important in both the processed and the fresh vegetable market, but the vegetable conformation demanded by the commercial processor may differ from the conformation demanded by the fresh vegetable consumer. Conformation refers to the size, length, diameter and color of the vegetable. In addition, each vegetable processor may need a specific product variety, quality standard or pre-processing and packaging requirement. For example, a french fry processor requires a different variety of potato than a potato chip processor does. Each may require a different conformation. The producer must match the processor requirements or the product is worthless in that market.

The USDA and the processing industry have specific standards and conformations for vegetables. The vegetable processors have final approval of the product since they offer the price and own the vegetable processing equipment. In the event a producer and a processor disagree on the vegetable conformation, the USDA will provide an inspector. If the product is rejected, the USDA inspector's fee must be covered by the grower. If the vegetable is acceptable, the processor pays the fee and must accept the load. Processors

have noted that inspection requests in Nebraska have been rare.

A final word of caution: bad news travels fast in the vegetable industry. If you disappoint a customer, the word gets around. Supplying a load of vegetables which do not meet the buyers specifications may result in the loss potential customers besides the rejection of that single load.

Product Pricing

Prices in the processed vegetable market are often set by contracts. Contracts can be established that protect the processor in case of a price increase and the producer in the event of a price fall. The vegetable processor may contract a year in advance. Processors will contract with several area producers to protect themselves in case a single producer is unable to fill a contract. The processor may also use contracts to schedule the flow of vegetables over the production cycle.

Some processors will negotiate contracts for delivery only. This means that when you sign the contract, you are guaranteeing to deliver the crop whether you are able to grow it or not. Other processors may be willing to let you out of a contract in case your crop fails.

Market Opportunities

The marketing of the vegetable product presents as many problems for the producer as the production and grading. The first step is to identify the vegetable processors and their specific requirements. The Nebraska Food Processing Association, a group made up of food processors, is available to help Nebraska producers meet their processors' demands

for vegetables. (See Appendix)

For example, in Nebraska we don't have any trouble growing sweet corn, but we lack the field cooling, grading and packing operations which would make wholesale fresh market sales possible and we lack the processing operations necessary to supply high quality frozen corn to processors. A local TV dinner manufacturer uses over 2,000,000 pounds of sweet corn in his product every year. Most of it comes from New Jersey where they have field cooling and extensive processing and freezing facilities. The facilities are huge in order to move large amounts of product through when the peak season hits.

Several onion producers in Nebraska have started grading and freezing operations and are supplying area manufacturers. This is certainly a step in the right direction but buyers for these products want to see years of production experience to assure themselves that required product quality and quantity are present. The danger of overproduction, so disasterous to our grain crops, is present even more so with vegetables. The perishable nature of vegetables means that storage times are very short. A producer cannot wait out a

saturated market.

Two types of processed food markets exist in Nebraska. Intermediate markets require pre-processed products intended for additional processing: cleaning grain, dicing and freezing onions, slaughtering and quartering of beef are some examples. The finished food products (supplied to distributors or sold directly to the final consumer) are also in lively demand in Nebraska. You may have noticed the new Nebraska-grown products arriving on the grocery store shelves in the past few years. The Nebraska Food Industry Association promotes Nebraska products in grocery stores and restaurants.

SUMMARY

In summary, producers need to be aware of all levels of production and marketing in Nebraska. Farmers Markets can bring premium retail prices for above average quality products or provide a market for off-spec products which other buyers can't handle. Quantities which can be sold are limited now but in other parts of the country Farmers

Markets are a significant supplier in local markets.

Fresh market wholesalers represent a strong market segment in Nebraska but they have the highest standards for quality and packaging. Only a small percentage of a crop will pass quality guidelines. Recently a Northeast Nebraska Vegetable Coop had only 20% of their tomato crop reach fresh vegetable standards. Many thousands of pounds of tomatoes had to be discarded. If a local tomato processor could have been found to buy the excess tomatoes, they would not have been discarded. In many cases it does take years to establish a relationship with a processor. Perhaps next year, contacts made this year will result in contracts to deliver tomatoes. Perhaps in that time interval an intermediate processing step can be taken by the Coop to preserve the crop for later sales.

Alternative crops can be a profitable venture. Good planning and solid financial resources are necessary to escape some of the more obvious pitfalls. Starting at a reasonable level of production; establishing production efficiencies, and marketing expertise, will give the producer the confidence and tools to expand into higher levels of

production and processing.

SECTION V

RESOURCE EFFICIENT CROP PRODUCTION TECHNIQUES

In order to survive growers will have to be as efficient as possible. This excerpt from a paper by Chuck Francis points out some valuable techniques which can be applied to vegetable production.

Introduction

The Nebraska farmer today faces escalating costs of production, causing increased interest in farming practices which are more input and cost effective. The farmer can reduce variable costs associated with agriculture by making more efficient use of purchased fertilizers, by applying fewer pesticides, by taking advantage of genetic tolerance or resistance to insects and disease, and by creating and implementing more sustainable systems of production. These systems make greater use of resources internal to the farm, and reduce reliance on expensive outside resources.

In a recent survey by *The New Farm*, a major agricultural publication, farmers who converted from chemical-intensive to reduced-chemical farming systems reported several reasons for making the change: 84% were trying to reduce production costs, 79% to make the farming environment a safer place to work and live, and 68% to improve the quality of the products from their farms.

Challenges

Agriculture is the foremost industry in the Midwest. Although other industries employ a larger segment of our population, many of these other activities depend directly on agriculture for raw materials. These industries are possible only because of our success in farming. Yet our agricultural system is deeply troubled.

Even with a strong and somewhat diverse agricultural economy based on about 60,000 farms in the state, Nebraskans import \$777 million worth of food each year. Fifty percent (50%) of all food consumed in the state is imported. While we produce more of some crops than we have a market for, we are not meeting the demand in other markets. With specialization, the farmer has become highly efficient, but dependent on a wide range of factors over which he/she has little control.

Heavy dependence on production inputs from outside sources and lack of control over the costs of these inputs have increased both production costs and susceptibility to economic factors far-removed from the farm. Relying on export markets for a majority of products has further increased the producers' dependence on a world market which varies with international exchange rates, political alliances and embargoes, and climate. Nebraska's

concentration on a few commodity crops and high yield production, with the high input required to reach those high yields, have further intensified the economic squeeze of high costs and low prices.

The Nebraska farmer must either implement practices which allow him/her to compete on a national and international scale, or must find other crops, products, and markets less subject to that same competition. We present here some alternate practices to help Nebraska's farmers regain their independence, maintain the farm economy, and improve the long-term sustainability of agriculture in Nebraska.

Solutions

A wide range of alternative production practices and inputs have been used over the centuries in agriculture. It is only through recent research on some of these alternatives that we are beginning to realize their full potentials and how we can incorporate them into today's agricultural systems.

In general, traditional systems take advantage of resources which are internal to the farm - those which are available from the land. Internal resources such as mineral nutrients in the soil, sunlight or solar energy and precipitation, and atmospheric nitrogen are low cost, regenerative and/or locally controllable. Most intensive modern production systems substitute inputs from outside the farm, such as irrigation water, synthetic fertilizers, pesticides and fossil fuel energy. These inputs must be purchased from external sources. A rational combination of internal and external resources is key to sustaining Nebraska's agriculture, balancing yield goals with inputs to produce the optimum net sustainable gain.

Fertilizer Application. For most of the history of cultivated crops, fertilizers were provided by nitrogen fixed by legumes and by application of crop and animal residues to the fields. In the first half of this century, most nutrients were cycled through crop rotations and integrated crop/animal systems, providing low-cost plant nutrition and moderate but sustainable yields. These practices can be integrated into today's intensive

cropping systems which pursue high yield goals.

Overseeding legumes into a summer annual crop at last cultivation or late in the season can capture the sunlight and rainfall which otherwise will not be used between harvest and the next planting. Overseeding can contribute from 100 to 150 kg/ha of nitrogen and make it possible to reduce the nitrogen application to the next summer's crops. Use of soil tests can lead to savings of up to 50% of applied fertilizers. In Nebraska, soil test results show that in some years dryland fields need no fertilizer. Even where there is a response to nitrogen, it often is possible to reduce or eliminate application of other nutrients without reducing yields. Rotation of corn or sorghum with soybeans can reduce nitrogen needs of the cereals by about 50 kg/ha. These practices have all been successfully used by farmers, and could be implemented by many more farmers to significantly reduce the nutrient costs of agriculture.

Pest Control. Systems of integrated pest management are becoming increasingly popular. Today, many producers are assessing potential economic damage before spraying a post-emergence herbicide or insecticide. Indices are being developed to help the farmer make these decisions and apply only those materials which are absolutely essential for production.

Crop rotations and some cropping practices can produce better control of insects and weeds than continuous monoculture. Corn rootworm can often be controlled by rotation with soybeans or a hay crop. Many annual weeds can be choked out by the high density

and competition of rotation with alfalfa or grass hay.

Biological control has become commonplace for some insect pests. In the future, new generation pesticides which are applied in extremely low doses with ultra-low-volume applicators will replace many of today's more toxic materials. Some of these are biologically derived compounds, and they are more selective in effect than current pesticides. Genetic resistance to insects and disease will also contribute to pest management. These new approaches, combining biological and cropping systems controls with improved chemicals should lead to better control, less pesticide residue in foods, and lower production costs.

Water Use. One of our most under-utilized resources is rainfall. Maintaining residue on the soil surface through minimum or zero tillage systems reduces topsoil erosion and surface rainfall runoff. Reducing erosion conserves not only water for the crop, but also prevents the loss of nutrients from topsoil erosion. Trapping and conserving water where it falls for later use by crops is certainly one of the most cost-effective ways to maximize the use of this scarce resource.

More intensive cropping systems which produce and return more residue to the soil also increase soil organic matter and water holding capacity. Increasing the organic matter content of the soil improves its tilth, improving both aeration and water holding capacity,

reducing crop stress, and ultimately increasing the efficiency of production.

Deep-rooted crops in rotation or together with shallow-rooted crops can help capture and recycle both water and nutrients that would otherwise be lost by leaching through the root zone. Choosing crops which have lower water requirements can reduce water needs during the growth cycle. Selection of varieties or hybrids which have greater moisture stress tolerance or water use efficiency is another route to more efficient water use by crop plants. These genetic and cultural approaches to improved water use, new irrigation techniques, and better capture and use of rainfall can all contribute to more efficient water use.

Tillage Systems. Many producers are reducing tillage operations to lower their fuel costs as well as to conserve water and soil. New generation planters and advanced herbicides have made this shift possible. The ridge till scheme with banded herbicide or frequent use of the rotary hoe and field cultivator makes weed control effective, even with low rates or possible elimination of herbicides. Permanent traffic systems can reduce overall field compaction, improve root growth and moisture storage, and boost crop yields.

Retrofitted center pivot systems can be used to seed directly through a surface mulch with a water stream. This allows relay planting or seeding into stubble of a recently combined cereal without tillage. It also enables the farmer to seed a legume into a growing cereal at any time in the crop growth cycle. These systems, while still in the development

stage, are options for the future.

Genetic Selection of Crops. Plant breeders are constantly developing new selections. These varieties use nutrients and water more efficiently, have stronger root systems, tolerate specific stress conditions, or have resistance or tolerance to diseases and insects. When this capacity is built into the seed which the farmer buys, one of the least expensive production inputs can bring great efficiency to the system.

Our agricultural product mix can also be changed with the adoption of other crops for food, fiber, or industry. Some of these are common crops in other parts of the world. Some have not been cropped extensively, but are now being developed as their potential uses are identified. These cropping changes should be based on input requirements and

markets.

Cropping Systems. Although widely used in developing countries by small farmers, multiple cropping systems have unfortunately found limited application in high-technology agriculture. Recent research on strip cropping has shown yield advantages of up to 10% over comparable monocultures of corn and soybeans. Strip cropping also introduces the option of internal rotation in the field and contour arrangement of strips to minimize hillside soil erosion.

Conclusions: Resource-Efficient Farming Systems

Practices discussed above have been tried and tested by many producers and researchers in recent years. It has been shown that managers can make major changes in their production systems and significantly reduce both costs and use of outside production resources. In most cases, internal production resources are substituted for expensive inputs from outside the local system.

A rational blend of current high-technology systems with alternative, regenerative, resource-efficient, organic, biodynamic, or low-input agricultural systems, rather than suggesting a step back in time, now represents a potential leap forward in efficient resource

use.

This is an exciting time for agriculture. We are indeed at a turning point, at a time of decision. There are new understandings of how cropping systems work and how interactions among species of crops and microorganisms can be used to advantage in our production systems. The farmers who make good and timely use of new ideas and production practices will be the most successful farmers of tomorrow. It is a time to seek new solutions to continuing challenges in the agricultural industry and to devise equitable systems which can help sustain our farm economy.

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APPENDIX

Plenty of help is available as you begin to try to start up an alternative crop system. The University of Nebraska created a task force of people from many different disciplines to offer a coordinated plan to diversify agriculture in Nebraska. Representatives from Agronomy, Horticulture, Food Processing, Cooperative Extension Service and other interested groups are meeting to integrate recent work on alternative crops into the traditional agricultural information delivery system.

You or your County Extension Agent can draw on the expertise of this University of Nebraska task force to answer many questions on production, harvesting and processing of alternative crops. The Extension Agent is also the place to go for information on local

farmers markets and road side stands.

There are also two excellent publications available from the Food Processing Center at the University of Nebraska: *Understanding Commercial Vegetable Markets In Nebraska* and *Vegetable Production, Processing and Marketing In Nebraska* written by Bob O'Keefe; both are published by the Food Processing Center.

VEGETABLE PERIODICALS

American Vegetable Grower. Willoughsby, Ohio. Extensive collection, UNL Library, Lincoln, NE.

The Packer. P.O. Box 2939, Shawnee Mission, KS, 66201.

VEGETABLE REFERENCE BOOKS UNL LIBRARY, LINCOLN, NE

(Available through the Inter-Library Loan Program. Ask your local librarian for more information)

Frozen Vegetables-Growing for Freezing. New York. McMillan, 1977.

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GOVERNMENT

State government offers a number of programs to help emerging agricultural ventures. The Nebraska Department of Agriculture has a new program emphasizing alternative crop marketing. The Nebraska Department of Economic Development has business planning programs and grant programs for which you can apply for by working through your local government.

Beef Industry Development Board P.O. Box 580 Gibbon, NE 68840-0580

Nebraska Department of Agriculture P.O. Box 94947 Lincoln, NE 68509 402-471-2341

Nebraska Telecommunications and Information Center.

Buy Nebraska: A Tool For Nebraska Business
301 Centennial Mall South
Box 95143 Lincoln, NE 68509
402-471-2593

Nebraska Department of Economic Development 301 Centennial Mall South Box 94666 Lincoln, NE 68509 402-471-3111

Nebraska Department of Economic Development Publications:

Guide For Local Economic Development Strategic Planning
Resource Manual for Nebraska Business
Nebraska Development News
Community and Economic Development Financing Tools in Nebraska
Nebraska Mortgage Finance Fund
Nebraska Development Finance Fund
Business Development Corporation of Nebraska
Community Development Finance Programs
Tourism Development Marketing Assistance Programs
Community Improvement Financing

Nebraska Department of Environmental Control P.O. Box 94877 Lincoln, NE 68509-4877 402-471-2186

Nebraska Department of Health P.O. Box 95007 Lincoln, NE 68509-5007 402-471-2133

UNIVERSITY OF NEBRASKA

Dr. Charles Walker Director, Food Processing Center 134 Filley Hall, East Campus University of Nebraska Lincoln, NE 68583-0919 402-472-2833

Dr. Paul Reed Vegetable and Fruit Task Force Department of Horticulture Plant Science Hall, East Campus University of Nebraska Lincoln, NE 68583 402 472-2833

Agnet, Miller Hall 105
University of Nebraska
Lincoln, NE 68583 402 472-2033
Agroindex: A New Index of Agronomy Publications Relevant To Nebraska Agriculture, and Hortlist; an interactive listing of buyers and sellers of horticultural crops

Nebraska Technical Assistance Center, W191 Nebraska Hall Lincoln, NE 68588-0535 402-472-5600

Farm and Ranch Financial Counseling Service, sponsored by: IANR, Nebraska Cooperative Extension Service, University of Nebraska, Department of Agricultural Economics 800-535-3456

Warren Sahs, Institute of Agriculture and Natural Resources Organic Farming Field Trials, Mead, NE 402 472-2973

MARKETS

Wholesale and processor markets can be found in your local yellow pages or supplied by the Food Processing Center or the Nebraska Food Industry Association. Some specialized markets and publications are listed if available:

Organic Foods

Blooming Prairie Warehouse, Inc. *Prairie News* 2340 Heinz Road, Iowa City, Iowa 52240 319-337-6448

Demeter Marketing and Support Group 5819 Beckford Avenue, Tarzana, CA 91356

Anderson, Peter L., and Harold R. Linstrom, Farmer To Consumer Direct Marketing, Selected States, 1979-80. EMS Publications, Room 0054 South, Washington, D.C. 20250

Small Farms Action Group Nebraska Direct Marketing Consumers Guide Box 80729, Lincoln, NE 68501 402-588-2637

General

The Acreage, Country Emporium Rt. 1 Box 90 B, Roca, NE 68430 402-423-6138

PRODUCTION AND PROCESSING PUBLICATIONS

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- O'Keefe, Dr. Robert B. Vegetable Production, Processing and Marketing in Nebraska. August, 1986. Food Processing Center, University of Nebraska, Lincoln, NE 68583
- Thomas Register Food Handling and Processing Equipment. Listing at your public library
- Two sources of fresh pack equipment: Ernst Manufacturing Bakersfield, CA Zeke Graft Moses Lake, WA

ENERGY CONSERVATION PUBLICATIONS

- South Dakota Office of Energy Policy. Agricultural Energy Conservation in South Dakota: A Guide To Energy Management, May 1981, Pierre, South Dakota
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FARM ORGANIZATIONS

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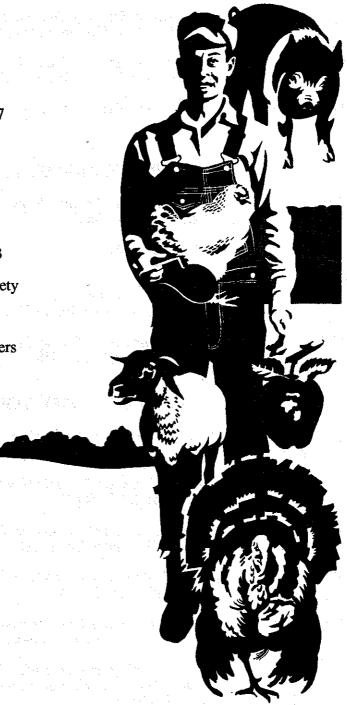
Nebraska Food Industry Association Jim Kohler, Prairie Maid Meats P.O. Box 80129 Lincoln, NE 68501 402-477-3913

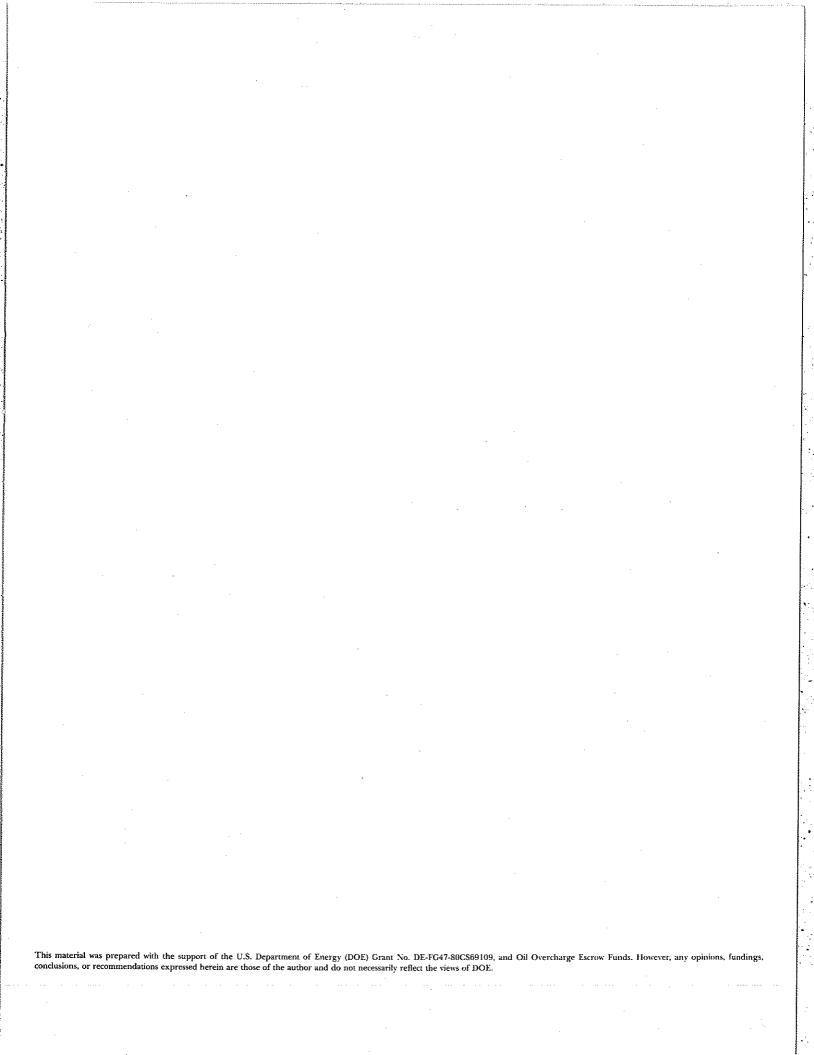
Nebraska Sustainable Agriculture Society Dave Vetter Marquette, NE 68854

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